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AUTHOR	Senne, Terry A.
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ABSTRACT

This study examined nine cohort teacher candidates from each of two physical education teacher education (PETE) programs developed teaching portfolios in three consecutive semesters of comparable courses: (1) elementary methods; (2) secondary methods; and (3) the student teaching internship. Studied were changes over time in teacher candidate reflection themes; perceptions of the portfolio process, its value, and construction; and the impact of portfolio implementation on professional development. Lesson reflections, weekly reflection logs, focus group interviews, and portfolio questionnaires served as qualitative data sources. Findings demonstrated many similarities in teacher candidate reflection themes for both universities during the 3-semester portfolio implementation. The findings revealed the importance of time and a structured plan for accomplishing positive professional development among teacher candidates. Teacher candidates exposed to a well developed and executed conceptual framework of coaching and conditions to promote adult development faired better than their counterparts without such an explicit framework. (Author/AA)

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Portfolio Development as a Three-Semester Process: The Value of a Sequential Experience

Terry A. Senne, Ph.D.
sennet@mail.ecu.edu
East Carolina University
Department of Exercise & Sport Science
152 Minges Coliseum
Greenville, NC 27858-4353

G. Linda Rikard, Ed.D.
lrikard@gmu.edu
George Mason University
Department of Health, Fitness and Recreation Resources

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Abstract

This study extended previous research by the authors on portfolios constructed solely during internship experience (Senne & Rikard, 2002). Nine cohort teacher candidates from each of two physical education teacher education (PETE) programs developed teaching portfolios in three consecutive semesters of comparable courses: (a) elementary methods, (b) secondary methods, and (c) the student teaching internship. Studied were changes over time in teacher candidate reflection themes; perceptions of the portfolio process, its value, and construction; and the impact of portfolio implementation on professional development. Lesson reflections, weekly reflection logs, focus group interviews, and portfolio questionnaires served as qualitative data sources. Rest's (1986) Defining Issues Test (DIT) quantitatively measured principled thinking, an indicator of developmental growth. Findings demonstrated many similarities in teacher candidate reflection themes for both universities during the three-semester portfolio implementation. A crucial programmatic difference between institutions was the use of the Teaching/Learning Framework (Sprinthall & Thies-Sprinthall, 1983) by University A, which may have led to their statistically significant, positive growth on DIT gain scores. The findings revealed the importance of time and a structured plan for accomplishing positive professional development among teacher candidates. Teacher candidates exposed to a well developed and executed conceptual framework of coaching and conditions to promote adult development faired better than their counterparts without such an explicit framework. Further interventions using the Teaching/Learning Framework in tandem with portfolio development over an extended period of time are warranted. Use of additional quantitative measures as indicators of teacher candidate professional development are essential to provide for validity and reliability of the portfolio process.

Portfolio Development as a Three-Semester Process:

The Value of a Sequential Experience

Since 1998, research on teaching portfolios has primarily focused on the portfolio as a means of assessment in teacher education programs (Anderson & DeMeulle, 1998; Darling-Hammond & Snyder, 2000; Trube & Madden, 2001). In addition, recent research has revealed an emphasis on the use of standards (national, INTASC) to drive portfolio contents and categories (Moseley, 2000; Trube & Madden, 2001), as well as the use of portfolios as a vehicle to promote teacher candidate reflection (Zeichner & Wray, 2001) and professional development/growth (Senne, 1997; Senne & Rikard, 2002). Moreover, a wide array of current portfolio research has emerged as a result of the development of electronic portfolios (Barrett, 2000; Bull, Montgomery, Overton, & Kimball, 1999).

Portfolio development and implementation have become increasingly more commonplace in teacher education programs (Zeichner & Wray, 2001), and likewise within PETE programs. Most teacher education programs have become "vested" in the teaching portfolio in one form or another, as various state accreditation agencies, schools of education, and current NCATE directives push for a performance-based product by which to ascertain the level of teacher candidate competencies for initial teacher and alternatively, continuing teacher licensure (Deitz, 1998; Porter, Youngs, & Odden, 2001). Hence, it seems evident that teaching portfolios will prevail as a critical component of teacher education programs (Zeichner & Wray, 2001).

Despite the popularity of teaching portfolios within the teacher education context, few systematic studies have been conducted on portfolio development in terms of assessment and/or developmental purposes (Lyons, 1998; Senne & Rikard, 2002; Zeichner & Wray, 2001).

> Because of the high degree of variability in the way in which teaching portfolios have been conceptualized and implemented in teaching and teacher education, there is a need to gain greater clarity about the different ways in which they [portfolios] have been used to access and help teachers develop (Zeichner & Wray, 2001, p.615).

And, although knowledge and insight has been gained by both empirical and practical research on teaching portfolios (Senne & Rikard, 2002), teacher education programs typically continue the trend of initiating portfolio development solely during the capstone semester of the internship. Interns who

developed teaching portfolios only during the internship were oftentimes quite stressed by its demands, in addition to the traditional rigors of student teaching. Moreover, it was suggested that its implementation at this stage of the teacher education program might have been more counterproductive than beneficial (Senne, 1997; Senne & Rikard, 2002). A frequent recommendation echoed by interns relative to portfolio development was to "begin the process earlier" in the teacher education program.

Consequently, recent research findings on integration of teaching portfolios in teacher education programs, results and implications of our initial portfolio study, and the lack of, and need for more systematic studies on portfolio development, served as the major impetus and rationale to initiate the process based on two specific PETE portfolio models driven by conceptual, theoretical frameworks. The following research questions framed the study: (a) "What changes are evident over time in teacher candidate reflection themes as evidenced in lesson reflections and reflection logs developed as a component of the 3-semester portfolio process?", [This research question will not be addressed here due to length constraints within this paper.] (b) "What do teacher candidate perceptions of the portfolio process, its value, and its construction indicate over the course of a three-semester portfolio implementation?", and (c) "What is the impact of a three-semester portfolio implementation on teacher candidate professional development/growth?"

For the purposes of this study, the term "preservice teacher" will indicate PETE students during the first and second semesters (elementary and secondary methods) of portfolio implementation. "Interns" will be used when specifically addressing participants during the internship semester of portfolio implementation. And, "teacher candidates" will be used to represent combined groups of preservice teachers and interns. This paper will focus specifically on the second and third research questions.

Portfolio Models

University A Portfolio Model

Conceptual framework implementation. Each program employed a theoretical conceptual framework to guide portfolio development over the three-semester process. During each semester of portfolio development and implementation at University A, the investigator employed the Teaching/Learning Framework (Sprinthall & Thies-Sprinthall, 1983) as its conceptual, theoretical model. The framework is founded on cognitive developmental theory and is used to promote growth to more

complex levels of psychological maturity or adult development. The framework consists of a social role-taking model that outlines conditions to promote psychological growth (Sprinthall & Thies-Sprinthall, 1983) and coaching components (Joyce & Showers, 1996) that promote teaching skill acquisition. The conditions for promoting growth include: a new significant role-taking experience, guided reflection, a balance between experience and reflection, support and challenge, and continuity. Skill acquisition components include: theorizing and rationalizing the teaching skill, observing an effective demonstration of the teaching skill, practicing the teaching skill while receiving feedback, and adapting and generalizing the teaching skill to one's own instructional repertoire.

The *conditions for growth component* of theTeaching/Learning framework was incorporated in a variety of ways. The significant new role-taking experience condition was met as teacher candidates assumed the role of "teacher" during elementary and secondary teaching practicum experiences, and subsequently during the internship. The remaining elements of this theoretical component are discussed with specific examples to illustrate the developmental model in action.

Throughout all three semesters of portfolio development there was written "dialogue" on a weekly basis between the investigator and teacher candidates. The Adapted Flanders for Written Reflection Model (Reiman, 1988) was implemented in order to assess where teacher candidates were developmentally, based on journal patterns of reflection logs and lesson reflections. For those exhibiting lower levels of conceptual complexity, the investigator responded with fairly direct and structured comments, while offering support and encouragement. For example, if a teacher candidate was having difficulty establishing a behavior management plan, the investigator might suggest resources and management techniques that, with consistent application, could be implemented by the teacher candidate to improve this aspect of his or her teaching.

In contrast, interns demonstrating higher levels of conceptual complexity received written, differentiated feedback that was more indirect and less structured. The investigator employed a more theoretical and complex level of questioning in response. For instance, if an intern exhibited confidence in employing a fairly direct instructional approach, the investigator might challenge him or her to experiment with a variety of more indirect instructional approaches.

Concepts of *matching and mismatching* (Hunt, 1976) were also employed as dictated through teacher candidate reflection patterns in an effort to facilitate developmental growth. Accommodating or reinforcing one's current preferred stage of development is referred to as *matching*, or responding to, one's developmental stage. When an individual demonstrates a readiness for more complexity; however, a *mismatch* or challenge is employed. The application of careful differentiation provides for a more rigorous and intensive intervention to promote growth (Thies-Sprinthall, 1984) and therefore might lend support to the Teaching/Learning conceptual framework as a potential intervention model for use in development of teacher candidate portfolios.

The *coaching component* of the Teaching/Learning Framework was mirrored in the application of the action plan for improvement in teaching that served as a primary focus of the INTASC Standard 9: Reflective Practice and Professional Growth component of the University A portfolio. The major thrust of this portfolio component was teaching effectiveness. Teacher candidates assessed their current teaching effectiveness and selected a designated teaching skill they wished to develop during teaching practica and internships. They had to provide a rationale for their selection. In addition, teacher candidates wrote a measurable and observable teaching outcome that illustrated the level of competence they wanted to attain. Teacher candidates were then required to seek resources to help them improve on their selected teaching skill. One essential component in the coaching model consisted of an effective demonstration of the selected teaching skill (e.g., a clinical teacher might serve in this capacity). Subsequently, teacher candidates practiced the selected skill in a variety of contexts, while receiving feedback, and documenting progress on the skill via systematic observation instruments. Once they attained the level of competency desired, teacher candidates adapted and generalized the selected teaching skill into their instructional repertoires. As teacher candidates completed their current action plans, they repeated the process with a new teaching skill focus and subsequent action plan.

Portfolio construction and development. Portfolio construction over the three-semester implementation was developmental in nature, and included components developed by the investigator, as well as components of the North Carolina Performance-Based Licensure Product (PBLP), required for continuing teacher licensure. The portfolio constructed during elementary methods was fairly simplistic

and primarily emphasized improvement in teaching. In contrast, portfolios developed during secondary methods and internship semesters of the PETE program became more complex and sophisticated.

The initiation of portfolio construction and development commenced during elementary methods. Portfolio contents in this first semester of portfolio development consisted of the following components: (a) development plan for improvement of teaching, (b) systematic documentation for improvement in teaching, (c) video analysis (videotape included) of teaching, (d) culminating reflection on improvement in teaching, (e) lesson plan development and reflection, and (f) computer technology component. Components a, b, and c were somewhat analogous to "INTASC Standard 9: Reflective Practice/Professional Growth" component of secondary and internship portfolios. This component remained consistent throughout the three-semester implementation.

Portfolio development during secondary methods built upon components previously established, while adding instructional and managerial aspects to its contents. Portfolio components included: (a) "Getting to know me", (b) demonstrating your content knowledge and your ability to teach it (instructional practices), (c) focusing on the classroom climate, (d) INTASC Standard 9: Reflective practice/professional growth, (e) lesson development and reflection, and (f) technology component. Preservice teachers focused on the development of a classroom management plan and an instructional unit to implement during their internship. Furthermore, initial development of a teaching philosophy and resume commenced during this semester of portfolio development.

The final semester of portfolio development occurred during the internship. The internship portfolio integrated contents developed during the previous semester with the exclusion of lesson plan development. University supervisors and clinical teachers addressed this component separately during the internship. Content differences for each component did exist however, in that some components had additional subcomponents or additional tasks required of the intern. For example, the unit plan developed during semester two was implemented in the internship, provided the intern was student teaching at the secondary level. Interns were required to conduct assessments in all three learning domains on their students during the unit implementation. Subsequently, interns analyzed the resulting data and wrote a detailed reflection based upon their analyses. In addition, interns further refined and fully developed their teaching philosophy and resume that was initially drafted during the second semester of portfolio

implementation. Lastly, interns implemented the management plan developed in the second semester and chose to record an 8-day log of discipline incidents or maintain an 8-day case study on an individual student that presented behavioral challenges. Once again, a detailed reflection was written based upon evidence gathered in the discipline log or case study. Overall, reflection served as a critical component throughout all semesters of portfolio construction.

University B Portfolio Model

Conceptual framework. Wallace's (1991) Reflective Practice Model served as the conceptual framework during University B's three-semester portfolio implementation. Wallace's model was derived from Schon's (1983, 1987) work in reflective practice and teacher training. Connecting classroom theory to professional practice in support of teacher development served as the model's overriding theme. Wallace described a concrete model for reflective practice as a key to connecting classroom theory to professional practice in support of teacher development. Wallace's model is summarized in three stages: Stage I, the pretraining stage, reflects the education level and life experiences a person has before beginning a professional teacher education program. Stage II represents the teacher education program of professional development that includes two broad categies: (a) received knowledge derived from theory, facts, and discipline-specific content knowledge, and (b) experiential knowledge gained by professional action and practical knowledge central to the reflective model. Experiential knowledge is gained from participating in school-based observations, teaching simulations, and field experiences used as the context for reflective practice and professional development. Stage III, professional competence, is the initial attainment of competency by preservice and inservice teachers who continue their development in the practice of teaching.

Portfolio construction and development. The elementary and secondary portfolio criteria applied the same six categories that were modified from the internship portfolio categories: (a) a philosophy of education, (b) teacher planning, (c) weekly reflection papers, (d) student assessment, (e) teacher self-assessment, and (f) technology. The internship portfolio required 10 categories: (a) a philosophy of education; (b) a resume; (c) professionalism and professional development; (d) classroom environment; (e) planning, preparation, and instruction; (f) family and community involvement; (g) technology in the classroom; (h) classroom management strategies; (i) assessment strategies; and (j) reflective statements

for each category beginning with professionalism. A final oral presentation was required of each intern. The development of a philosophy of education began in the elementary level and continued through the internship. Four categories were added during the internship including the resume, professional development, class environment, and family and community involvement. The development of reflective practices was encouraged and required across all semesters, yet, no formal framework for reflection was used for reflection was provided by the conceptual framework.

Method

Nine teacher candidates from University A and nine teacher candidates from University B provided informed consent to partake in the study for a total of eighteen participants ($N = 18$). Both groups completed a three, consecutive semester sequence of courses that emphasized and required continuous portfolio development. Courses included an elementary methods course, a secondary methods course, and a student teaching internship at both institutions. Each methods course incorporated school-based field experiences, and the internship provided a 15-week field experience in student teaching.

The descriptive statistical analysis revealed noteworthy differences between both groups relative to ethnicity, age, and parental status. Participant age was traditional for University A with a mean age of 22 years. University B consisted of several teacher candidates within the traditional age range; however, two participants, ages 50 and 54 respectively, led to significant mean age differences. University A was more diverse with two African Americans, a Native American, and six Caucasians participants, while all University B participants were Caucasian. In addition, five University B participants were parents. Each university group was comprised of five males and four females. University A is characterized as a rural, residential campus. In contrast, University B is considered to be a densely populated urban, commuter campus located near a metropolitan city.

For a period of three consecutive semesters, teacher candidates at both institutions progressively learned about the portfolio process. They collected and categorized materials in a three-ring binder with topical dividers during elementary and secondary methods courses and the final internship that illustrated their professional growth. A single exception to this pattern was the experimental use of an electronic portfolio rather than binders in University B's secondary methods course. During the final internship,

seminars occurred on a regular basis (weekly or bi-weekly for 2-3 hours) on respective campuses. Coordinators/instructors of the student teaching seminars were responsible for the delivery and evaluation of intern portfolios for the final concentrated 15-week period. The investigator at University A directed portfolio development in each of the three consecutive semester courses. In contrast, different professors conducted each course within the three-course sequence at University B. The University B investigator only directed portfolio development during the elementary methods course. In addition, each PETE program worked independently to incorporate their respective state mandates for utilizing the portfolio as a mechanism for tracing preservice teacher professional development. Both universities employed similar categorical systems during the internship derived from their offices of teacher education, along with state-mandated categories required only by University A. Organizational portfolio categories were similar and provided guidance for completing the portfolio process; nonetheless, each teacher education program developed the process in an individualistic manner, based upon its own conceptual framework. Both universities employed reflective theoretical models; however, University A demonstrated a more extensive and in-depth degree of emphasis on reflective practice in its implementation.

Procedure and Data Analysis

Data collected for the study consisted of both quantitative and qualitative components also found in Senne and Rikard (2002). Portfolio questionnaires completed by participants at the conclusion of each semester and focus group interviews completed at the conclusion of the internship were employed to examine teacher candidate perceptions of the portfolio process, its value, and construction during a three-semester portfolio implementation. Rest's (1986) Defining Issues Test (DIT) and the portfolio questionnaire were used to determine the impact of a three-semester portfolio implementation on teacher candidate professional development/growth.

Quantitative component. The study employed a quasi-experimental, pretest-posttest research design. No control or comparison group was included, due to constraints in locating a comparable PETE program void of some form of portfolio development. Therefore, findings cannot be credited or generalized necessarily to the portfolio intervention.

Participants completed a diagnostic instrument at the beginning and end of the three-semester portfolio implementation. Rest's (1986) DIT was employed as an outcome measure of developmental

stage change in principled thinking or moral judgment reasoning (one facet of teacher professional development). The DIT assesses the basic conceptual framework by which an individual analyzes a social-moral problem and judges the proper course of action. The DIT's underlying assumption is that individuals who are at different levels in their development will interpret moral dilemmas or problems of social justice differently.

As one dimension of teacher professional development, moral judgment reasoning has been used in a variety of developmental studies (Chang, 1994; MacCallum, 1993; Reiman & Parramore, 1994; Senne, 1997). The DIT demonstrates both face and construct validity, and test-retest reliability is generally found to be in the high .70s or .80s. Cronbach's alpha index of internal consistency is in the high .70s. Additionally, two internal checks on subject reliability are built into the instrument scoring mechanism (Rest, 1986).

Initially, DIT pretests were analyzed using *t*-tests to verify that no significant differences in principled thinking existed between university group participants prior to implementation of the intervention (teaching portfolio). Once established, the intervention was conducted. Upon completion of the internship, interns were posttested on the DIT, and a *t*-test was conducted to determine if significant differences existed in gain scores, both within and between institutions. Furthermore, since developmental stage growth is directional, a one-tailed test of significance was employed with an alpha level of .05.

Qualitative component. Two data sources served to examine qualitative aspects of the study. A portfolio questionnaire was used to discern teacher candidate changes in perceptions of the portfolio process, its value, and construction across the three-semester portfolio implementation. Additionally, the portfolio questionnaire was used as a qualitative component to determine the impact of the portfolio process on teacher candidate professional/developmental growth over time. The first semester (elementary methods) portfolio questionnaire included the following questions:

- Over the past semester, which of your accomplishments as a developing teacher are you especially proud?
- As you reflect over the past semester, how do you describe your professional growth?
- You have begun developing a teaching portfolio this semester. What are you particularly pleased to share with your classmates?
- How do you feel about having developed a tangible product (the portfolio) of your work as a teacher?
- What parts of your portfolio were most helpful in your development?

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- What parts seem the least beneficial thus far?
- Please give suggestions for improvement of the portfolio.
- How has your field experience impacted your thinking about entering the teaching profession?
- Additional comments?

Likewise, the second semester (secondary methods) portfolio questionnaire incorporated aspects addressed during the first semester, in addition to the following question:

- How comfortable or uncomfortable are you with the portfolio process after two semesters of portfolio development?

Finally, the internship portfolio questionnaire posed one further question, in addition to those previously listed in semester two:

- How do you plan to use your portfolio as a first-year teacher?

All portfolio questionnaire responses were recorded verbatim and examined for themes employing inductive content analysis (Lincoln & Guba, 1985).

Additionally, individuals trained in qualitative focus group interview techniques at both institutions conducted and audio taped focus group interviews of interns at the conclusion of the internship to provide additional support for, or refute results gleaned on changes in teacher candidate perceptions of the portfolio process, value, and construction from portfolio questionnaires. This also served as a means of triangulating the qualitative data. The focus group interview protocol (for the purposes of this study) posed the following questions and open-ended statements relative to portfolio development:

- Please talk about what it has been like having the portfolio introduced in earlier courses, with the purpose of building gradually to the internship.
- Is it worthwhile to begin working with the portfolio two semesters in advance of the internship? Should this practice be continued? Why or why not?
- A main purpose of developing a portfolio is to have teachers reflect on their teaching for the purpose of change. Did the portfolio cause you to be more reflective? If yes, how and if no, why?
- If you had an opportunity to speak with individuals who were just beginning their own portfolio, what would you tell them? What specific advice might you share with them?

Procedurally, each intern was provided a designated number by which he or she would be addressed during the interview process to ensure anonymity. In addition, interviewees were requested to refrain from use of specific names (people or places) in response to questions posed or comments made by other interns. Upon completion of the focus group interviews, graduate research assistants transcribed the audiotapes verbatim via word processing. Subsequently, transcripts of focus group interviews were analyzed for recurring themes employing inductive content analysis (Lincoln & Guba, 1985).

Triangulation and trustworthiness of the qualitative data were achieved through several measures. First, multiple data sources were used during the study including reflection logs (not described/discussed in this paper), portfolio questionnaires, focus group interviews, and DIT. Use of a variety of data sources provided for a thorough examination of the data and assisted in the verification of findings. Second, data were analyzed in a systematic and methodical fashion. Internal consistency between investigators was achieved through continuous dialogue and examination of one another's data. Additionally, both investigators conducted searches for negative cases during analysis of the qualitative data.

Results

Perceptions of Portfolio Process, Value, and Construction

Portfolio questionnaires and focus group interviews served to discern teacher candidate perceptions in response to the research question, "What do teacher candidates perceptions of the portfolio process, its value, and construction indicate over the course of a three-semester portfolio implementation?"

University A. Overall, teacher candidate comments were strongly positive in response to all aspects addressed in perceptions of the portfolio process, its value, and construction. The value of the portfolio as a tangible product revealed two consistently strong themes across all semesters of portfolio implementation. Teacher candidates remarked that having a tangible product (portfolio) made them "feel good" and, they projected a "sense of accomplishment" in the final product. During the first and second semester of portfolio implementation, at least half of the preservice teachers also valued the tangible product as a way of "tracking their progress" and "representing their growth and accomplishments". Likewise, two interns also spoke to the ability to "show my professional growth and teaching abilities". In addition, three interns regarded the "product" as a "great tool" to "show to future employers".

Teacher candidates also revealed what they considered to be the most and least beneficial portfolio components. Reflections were noted as one of the most beneficial sections across all semesters of portfolio implementation; however, it's frequency of support diminished during the second and third semesters. Six preservice teachers noted the reflection component was noted during the first semester. Only two preservice teachers and two interns indicated the same during the second and third semester,

respectively. A second component consistent across semesters was the teaching video and its analysis. Three preservice teachers favored this component during the first semester, while one preservice teacher and three interns likewise, made this implication during the second and third semesters of portfolio development, correspondingly. Three teacher candidates mentioned lesson plans and INTASC 9 components as most beneficial as well. It was interesting to note that during the first and third semester of portfolio implementation, three to four teacher candidates indicated that there were no "least beneficial" sections—that all were beneficial. In contrast, two to three teacher candidates found the technology component to be least beneficial across all semesters of portfolio implementation.

Suggestions on how to improve the portfolio, comfort level in developing the portfolio, and its anticipated use during the first year of teaching topics were employed to examine teacher candidate perceptions of the portfolio process and its construction over the three-semester implementation. Responses of teacher candidates to suggestions for improvement of the portfolio were diverse across all semesters of portfolio implementation. Providing a sample portfolio to model, checking individual portfolio components throughout the semester, and establishing a timeline for drafts of various portfolio components served as a sampling of the suggestions offered. Only one intern suggested to "decrease the amount of work" for the portfolio.

During the second and third semester implementation, teacher candidates addressed their "comfort level" with developing a portfolio. All interns responding indicated they were "reasonably comfortable" with the portfolio process due, in part, to having an established timeline for submission of portfolio components during the internship semester. The investigator established a timeline in the third semester of implementation, based on previous semesters' preservice teacher comments and suggestions. Furthermore, interns acknowledged that they would be comfortable in constructing future portfolios.

Finally, interns provided a variety of responses as to how they might use the portfolio during their first year of teaching. Four interns mentioned the use of their portfolio as a "guide when I begin teaching". Similarly, three stated they would use it for guidance in developing the NC Performance-Based Licensure Product for continuing teacher licensure. Another intern remarked that it would be used "to determine the

things that need to be improved". In addition, two interns indicated that the portfolio would be used to "reflect on my teaching" and "to become a reflective teacher".

Seven of nine University A interns participated in a focus group interview toward the conclusion of the internship, revealing some interesting thoughts with respect to the portfolio process and its value. In response to the issue of introducing the portfolio initially in elementary methods and progressing to the internship, the reaction was negative at first; however, it became quite positive during the second and third semester of implementation, and the emerging metamorphosis of the portfolio became clearly evident: "From the beginning [elementary methods], we hated it. Thought it was stupid. Couldn't see a purpose to doing it. But, afterwards, working through it this semester [internship], it was easy." Another intern remarked, "You could plug stuff in from the other portfolios." By the final semester of portfolio development, the confidence of the interns was unmistakable: "We knew exactly what we were doing while interns from other disciplines [School of Education] didn't appear to have a clue." And, "Since we've done it for three semesters, bring on the one we need to do as an initially licensed teacher because I know what's coming."

Often, a primary purpose of the portfolio is to encourage teacher candidates to reflect on their teaching for the purpose of eliciting change. Some interns revealed that written reflections made them "think about what happened". In contrast, another intern challenged this notion:

> Everybody is reflective in their own way. You can do it in your mind (reflect) and don't always need to write it down because you know. I think reflections show we can do it and know what to change, but it's not everything about the reflection process.

In addition, a couple of interns noted that some reflections were repetitious. "Many reflections in the portfolio were repetitive and too lengthy." And, "Some questions were redundant."

Finally, interns provided advice to future teacher candidates on portfolio development and construction. Time management emerged as critical aspect of portfolio development. "Take your time", and "don't wait until the last minute" were words of advice frequently reiterated during the focus group interview. In tandem with time management, "do revisions along the way" and, work on it "piece by piece" were additional suggestions offered by interns to future portfolio developers. Furthermore, interns warned, "Don't get overwhelmed." and "Don't get intimidated by the size of it [portfolio]." Lastly, interns

emphasized the need to take the portfolio "seriously" and to put forth your "best effort" in its development and construction:

> Also, one thing is we go out to these schools and teach. How many people see you teach? Nobody. These [portfolios] are the tangible products that somebody says, 'Wow. Look what this person has done...look at what has happened to this person...look how much they have grown.' This is a product about you and doing the best you can is totally going to reflect the student teacher you are. Put all efforts into it, because that's the only tangible product you can show someone...

University B. In general, intern responses were quite positive regarding portfolio development over three semesters. They valued having a tangible product that showed their accomplishments. Three preservice teachers at the elementary level indicated the importance of compiling and organizing information, and three others commented about their growth, "shows your beginning as a teacher", "see my personal growth", and "accomplishments during teaching." Other comments were positive and varied in nature. Examples included "making me more marketable", "feel better prepared", and "appreciate this process for future foundation."

Positive momentum for use of the portfolio increased when preservice teachers moved to the secondary methods course. Three secondary preservice teachers emphasized the use of portfolio for job attainment and "selling myself in the job market." Similar to the elementary level comment, three others viewed it as a "good resource", "a reference", and a way to "track my progress." Other comments describing the portfolio were more general, "an asset" and, "a great thing."

During the internship, comments about having a tangible product varied. There was support for the developmental nature of the portfolio. Typical comments included, "I love to look back and see where I have been and how far I've come.", "I'm so glad I started 3 semesters ago.", and "It's a nice scrapbook of what I've been doing." One intern called the portfolio "a blueprint of your PE Program", and another stated, "I feel that it was mostly developed over the last semester and was not quite clear as its purpose prior." Others referred to the portfolio as a resource and "useful in my interview process." One dissenter thought the tangible portfolio was "somewhat important", but wanted "a more technical approach such as

keeping a zip disk... or a web page." No common themes were noted across the three-semester implementation.

Preservice teachers stated their opinions on the most and least beneficial parts of the portfolio. At the elementary level, three preservice teachers agreed on three beneficial aspects of the portfolio: lesson planning, technology, and assessment of students. For secondary preservice teachers, unit and lesson planning were most cited. Others chose reflections, discovering new web sites, and student assessments as being most beneficial. During the internship, three interns cited class environment and five noted class management as most beneficial. Two interns cited that all parts of the portfolio were important, and two others agreed on their philosophy as key. Lesson planning and assessment were also valued categories cited by individual interns. In summary, lesson planning was the common thread between the elementary and secondary preservice teachers, but no common overriding theme connected all three school-based experiences.

Six preservice teachers at the elementary level chose reflections as least beneficial exercises for portfolio development. Two secondary level preservice teachers selected web site critiques, and two others selected reflections as least useful for adding to the portfolio. Some found article reviews to be redundant, whereas one comment indicated that all parts were beneficial. Finally, three interns cited the technology section as least useful because, "You use a lot of it just to develop the portfolio." Two interns cited the family and community involvement section as least used since there was little opportunity at their internship sites for such involvement. Thus, six preservice teachers (elementary), along with two preservice teachers (secondary) did not value the use of reflections during teaching practica. Interestingly, reflections were not considered least valued during the internship.

Teacher candidates made suggestions for improving the portfolio process. Elementary preservice teachers made an array of suggestions including adding a resume, adding peer lesson plans, personal teaching tools, and lists of professional organizations and web sites. One secondary preservice teacher requested a consistent portfolio format over three semesters. Others wanted to add materials from other experiences, and to continue the use of electronic portfolios. Some had no suggestions for improvements. Three interns also had no suggestions for improvement during the internship. Yet, individual responses included a request that all ten portfolio categories be applied in the methods classes, that a class be

added in class management, that the electronic portfolio be used, and that either paper or disk format be used throughout the three semesters. No categories were strongly supported across the three semesters.

At the end of the secondary methods course, preservice teachers were asked how comfortable they were with the portfolio process after two semesters of development. Five of nine respondents indicated they were comfortable with the process, "as long as I know what is expected." One preservice teacher stated, "I did not like the binder portfolio—too time consuming." At the end of their internship, interns were asked how they might use their portfolio during their first year of teaching. Three responded that they would use it for reflection, "to keep building on it", "use it to grow", "as a reminder of new...ideas", and for "accurate and organized records." Other individual responses cited that the portfolio would be used as "a representation of my teaching", a "reference tool for assessment and activity ideas", and "for interviews."

Parts of the focus group data also shed light on intern opinions of the three-semester portfolio process. Interns suggested that the same categories for portfolio development be used throughout the process, and that it was less valued in the earlier classes compared to the internship. One intern stated that it was "unrealistic" to have samples for each category. Two additional complaints were that materials from the elementary and secondary methods courses were not included in the final portfolio, and that interns were not allowed to add additional categories of their own choosing. Conversely, interns agreed that the portfolio helped them become better reflective practitioners, and that it was "easier to reflect on things when you are doing things that you have developed." One intern stated that the portfolio "helped me to support [my] philosophy", while another intern shared that, "it is very difficult to generate information" for the portfolio at the high school level compared to the elementary level. Finally, interns agreed on the importance of "starting early" and "show work from past semesters."

Impact of Three-Semester Portfolio Implementation on Professional Growth/Development

The Defining Issues Test (Rest, 1986) and corresponding information from the portfolio questionnaire provided key data in examination of the impact of a three-semester portfolio implementation on teacher candidate professional development/growth. The DIT (Rest, 1986) was employed as a quantitative outcome measure of developmental (professional) growth, while data derived from the portfolio questionnaire served as its qualitative counterpart.

Significant differences in University A's DIT gain scores in principled thinking (moral judgment reasoning) were found (alpha = .05, one-tailed, directional). University A interns (n = 9) demonstrated a mean of 25.0000 on the DIT pretest and 35.3778 on the posttest, with a t-value of –2.415 (.025>p> .01). In the examination of DIT scores, higher scores indicate a higher level of principled thinking. In contrast, no significant differences were evident in DIT gain scores for University B. University B interns (n = 5) exhibited a mean of 33.3400 on the DIT pretest and 30.3400 on the posttest, with a t-value of .500. Two University B interns' test scores were dropped in the DIT analysis due to built-in internal consistency checks within the DIT scoring mechanism. Concurrently, two other interns did not complete the DIT pretest and/or posttest; consequently leaving only five intern scores for inclusion in this analysis. Therefore, it was not appropriate to make comparisons on gain scores between the universities, nor to draw any conclusions with respect to within group changes from pre- to posttest for University B.

University A qualitative component. Portfolio questionnaires were used to discern teacher candidate perceptions of their professional growth during each semester of portfolio implementation. Comments from elementary preservice teachers indicated growth as a professional expressed in general terms, and as is revealed in the following statements: "I feel I grew this semester more than any other semester I have been in my major." And, "I feel that I have grown as a professional by having a knowledge of how to organize and teach my physical education classes." Conversely, during semester two, secondary preservice teachers conveyed their professional growth more specifically: "I have learned more about the responsibilities of a teacher. Not only am I a teacher, I am a role model, guidance counselor, etc...I feel that I have been able to be what the students needed during particular situations." And, "I can now create effective lesson plans for the secondary level. I now understand what you need for an effective class."

Interns demonstrated diversity in response to professional growth during the internship, as reflected in their comments: "...found new ways to motivate students", "developed my own philosophy of PE", "more creative", "can effectively employ behavior management", "can teach any topic in PE", and "can handle real-life situations".

Furthermore, "self confidence in teaching ability" resonated as a predominant theme of professional growth during the internship semester as well. "Although I am relatively young and

inexperienced, I feel I am ready to go into the world and teach." Similarly, "I feel I have grown tremendously over the last four years. My practicum experiences helped develop confidence in myself and my teaching..."

In summary, preservice teachers perceived professional growth initially in general terms. However, over the course of additional field experiences and the internship, interns tended to express professional growth relative to self-confidence in their teaching ability and specific teaching competencies developed. These qualitative indicators lend support to the significant findings gleaned in DIT gain scores of University A interns.

University B qualitative component. Questionnaire data were collected specific to professional development at the end of each field experience. During elementary teaching, preservice teachers viewed their professional growth as "profound" and "occurring slowly as a result of several different teaching experiences." Preservice teachers mentioned gaining confidence "in being responsible for classes" and "learning from mentors" as important, along with seeing "quality instruction." During the secondary field experience, one preservice teacher stated, "I am comfortable now in front of students of all ages." Additional comments included, "I have come a long way. When I started this program I had no idea what I was in for...I find myself making my book knowledge come to life" and " I have developed more confidence in my teaching."

Finally, in the 15-week internship, interns viewed their professional growth as significant as indicated by this comment:

> I know what I want to accomplish and that my philosophy is stronger now than 3 semesters ago. I see what is wrong in the classroom or gym and know I have the knowledge and capability to change it.

Other interns referred to their professional growth as "monumental", "exponential", and "enormous." One explained, "I soaked every ounce of experience up and was very humbled after working with some very excellent teachers." Two interns attributed their growth primarily to the internship by saying, "This semester of actual teaching was the most beneficial." and, "My growth began with my student teaching. That's where I learned what I need to know as a teacher."

Discussion and Implications

Program Comparisons

Perceptions of portfolio process, value, and construction. Teacher candidates from both universities agreed to the overall value of the three-semester portfolio process, yet, reluctance was seen initially. University A's cohort was somewhat negative about the process but quickly saw the utility in their work as they moved to the secondary practicum experience. Conversely, University B's cohort saw some value in the process initially, with their enthusiasm increasing as the process unfolded. Furthermore, both cohorts largely agreed on the worth of producing a tangible portfolio for showing their progress, use in job interviews, and demonstrating accomplishments over time. They also agreed that they gradually became more comfortable over three semesters with the portfolio process, with only two interns, one from each university, who noted that the process was too time consuming.

It is not uncommon for teacher candidates to respond initially in a negative manner to new and challenging assignments (portfolio). Oftentimes, it is difficult for them to see the "big picture" from the start since they've not had prior experience in portfolio development. Typically, the "ah-ha" arrives during the internship experience. Introducing new and challenging projects such as the portfolio can cause disequilibria or cognitive dissonance initially. Subsequently, as teacher candidates are able to accommodate and assimilate the task of portfolio development over three semesters, they become more capable of managing the task at hand, and move back toward a state of equilibration (Hunt, 1976). A mismatching In order to promote developmental growth is necessary as teacher candidates learn to assume their new role-taking experiences. In previous one-semester studies on portfolio development (Senne, 1997; Senne & Rikard, 2002) the task was too great of a challenge when presented solely during the internship with no prior orientation. Interns were sufficiently challenged in their new role as student teachers, and adding the demands of developing portfolios tipped the scales, resulting in a great deal of disequilibria. Thus the end product was counterproductive, rather than growth producing.

Differences among teacher candidates regarding the most and least beneficial aspects of portfolio development were quite interesting. The majority of University A teacher candidates cited the reflection component as most beneficial at the elementary level and two cited the same importance at the secondary and internship semesters. Conversely, the University B teacher candidates saw reflective

practice as least beneficial at the elementary level and two maintained that opinion for the secondary level. At the internship level, University B teacher candidates identified reflection as either most or least beneficial. We assume that they eventually saw value in reflective practice as the process unfolded without fully utilizing reflective practice.

As University A teacher candidates transitioned from the development of the portfolio during the initial semester to the final product developed in the internship, the reflection component became increasingly demanding. Perhaps in retrospect there may have been too much reflection embedded within the portfolio. And while it is important that teacher candidates develop and employ a reflection process, it might be more productive to require fewer, quality reflections for various portfolio components. Sometimes less is more. University A teacher candidates did become better reflectors over the three-semester portfolio implementation. Through an anecdotal document analysis of portfolio reflections, it was evident that reflections became more in-depth, critical, and thoughtful from one semester to the next. Reflection is a process, and as such, it takes time to develop. Conducting portfolio development over the course of three consecutive semesters provides a structured means by which to develop this skill. It forces teacher candidates to carefully consider what they do and the subsequent impact on K-12 learners.

Suggestions for improving the portfolio process varied for both cohort, and included having a sample model to follow, using timelines for drafts, and using a consistent format over time. Three University B teacher candidates provided no suggestions for improvement. In response to what advice they would give to future teacher candidates, University A candidates suggested they manage their time and do it piece-by-piece, to provide ongoing evidence of teaching performance. University B teacher candidates advised their peers similarly to start early in the process and include useful materials along the way. These findings support those of previous, one-semester portfolio studies (Senne, 1997; Senne & Rikard, 2002), thus lending support to the possibility that sustained and sequential portfolio implementation is preferred.

Finally, University A teacher candidates made suggestions about how they might use the portfolio during their first year of teaching. They planned to use it as a guide, especially for the performance-based licensure product mandated by the state. University B teacher candidates similarly

would use it as a reference, for job interviews, and as an ongoing representation of their teaching. Three of University B's cohort intended to use it for reflection, indicating that some reaped value from that process. It is imperative to gain further insight as to the value, importance, and use of the portfolio by conducting follow-up studies with former teacher candidates in order to derive the true potential of the portfolio as a curricular tool to promote growth and development during the teacher education program.

Impact on professional growth/development. University A teacher candidates demonstrated developmental growth based on their DIT gain scores. This finding is likely attributed to the specific intervention of the Teaching/Learning Framework employed by the investigator for University A throughout the three-semester portfolio intervention. Based upon cognitive developmental theory, it appears that sufficient time (continuity), and the consistency of a single individual (investigator) conducting the intervention enabled significant differences in teacher candidate DIT gain scores from pre- to posttest, possibly as a result of employing this specific developmental intervention. Qualitative findings lend support to this potential claim as well. And, numerous developmental intervention studies of six or more months assert the same (Peace, 1992; Reiman & Thies-Sprinthall, 1993; Thies-Sprinthall, 1984). In contrast, prior studies of portfolio development employing this same developmental intervention during a single semester did not reap significant differences in gain scores (Senne, 1997; Senne & Rikard, 2002). Consequently, further interventions employing this framework and others that may possibly promote

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would use it as a reference, for job interviews, and as an ongoing representation of their teaching. Three of University B's cohort intended to use it for reflection, indicating that some reaped value from that process. It is imperative to gain further insight as to the value, importance, and use of the portfolio by conducting follow-up studies with former teacher candidates in order to derive the true potential of the portfolio as a curricular tool to promote growth and development during the teacher education program.
Impact on professional growth/development. University A teacher candidates demonstrated developmental growth based on their DIT gain scores. This finding is likely attributed to the specific intervention of the Teaching/Learning Framework employed by the investigator for University A throughout the three-semester portfolio intervention. Based upon cognitive developmental theory, it appears that sufficient time (continuity), and the consistency of a single individual (investigator) conducting the intervention enabled significant differences in teacher candidate DIT gain scores from pre- to posttest, possibly as a result of employing this specific developmental intervention. Qualitative findings lend support to this potential claim as well. And, numerous developmental intervention studies of six or more months assert the same (Peace, 1992; Reiman & Thies-Sprinthall, 1993; Thies-Sprinthall, 1984). In contrast, prior studies of portfolio development employing this same developmental intervention during a single semester did not reap significant differences in gain scores (Senne, 1997; Senne & Rikard, 2002). Consequently, further interventions employing this framework and others that may possibly promote developmental growth are warranted.

Qualitatively, University A interns identified their increased confidence, increased knowledge, improved organizational skills, and lesson plan development as contributions to their tremendous growth as teachers. Interns from University B likewise boasted increased confidence, increased content knowledge, and the development of their philosophy as contributions to their continuous growth as developing teachers gained primarily during the internship. And, although a conceptual framework was utilized in portfolio development at University B (Wallace, 1991), the framework focused primarily on the structural development of portfolio categories, rather than providing a specific mechanism or plan of action to promote teacher candidate professional growth.

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Limitations

A primary limitation concerned the number of teacher candidate participants within each cohort. Although both PETE programs initially had a more substantial number of teacher candidates consenting to participate, some attrition occurred during the three-semester portfolio implementation. This was due, in part, to the fact that candidates do not necessarily transition through PETE programs in this specific back-to-back sequencing of courses for a variety of reasons; however, this is a reality faced by teacher education researchers when the educational setting serves as your "laboratory". Secondly, this study conducted a portfolio development intervention without the benefit of a comparison group; thereby, reducing research design strength. Finally, the loss of four University B teacher candidates on the DIT prohibited any comparison of developmental growth with respect to principled thinking either within the cohort or between institutions. Hence, findings cannot necessarily be attributed to the intervention itself. In sum, although limitations existed, it is imperative to glean as much as possible from teacher candidates that proceeded sequentially through the three-semester portfolio experience.

Conclusion

Findings in this study reveal the importance of time and a structured plan for accomplishing positive professional development among teacher candidates. Initially, the value of portfolio development was not evident, but as teacher candidates approached program completion, the value of the portfolio process became clear. Interns (University A) exposed to a well developed and executed framework of coaching and goal setting faired better than their counterparts without such a framework. Additional curricular interventions using the Teacher/Learning Framework applied in this study are warranted. Likewise, the employment of multiple measures of developmental stage change (conceptual complexity, cognition, ego) may further substantiate the validity and reliability of the portfolio process as a developmental intervention to promote developmental growth of teacher candidates.

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PORTFOLIO STUDY 2 DATA
UNIVERSITY A QUESTIONAIRE
PHASES 1 – 3

EXSS 3900/Elementary **Phase 1 – Spring 1999**	**EXSS4323/Secondary** **Phase 2 – Fall 1999**	**EXSS 4324/25 Internship** **Phase 3 – Spring 2000**
Accomplishments / Question #1	**Accomplishments as Developing Teacher**	**Reflection on course work in major** **Accomplishments as Developing Teacher**
-Games created [7] -Classroom management skills [4,8] -How I performed in teaching [3,1,6,5] -Completion of portfolio [3, 2] -Lesson planning improved [1,6] -Unit plan [3] -Comfortable w/students [9,6] -Time management [5]	-Ability to adapt in teaching situations [7] -Finding out what I enjoy most about teaching [1] -Feedback about my HS teaching [1] -Gained more confidence w/MS & HS students [6] -Able to improve classroom management skills [2,5] -Able to successfully execute my lessons [5] -Lesson planning [3] -Ability to teach successfully at all levels [8 -Applying knowledge gain in classroom to HS teaching [9]	-Learned to control emotions while teaching during Sting [4] -How I have done in methods courses [3] -Student teaching experience [9,7] -Most proud of portfolio [1,5,6] -Most proud of volunteer activity involvement [1] -Overcoming shyness & handling diverse situations [2] -Relationship developed w/students [8]
Professional Growth / Question #2		
-Nervous, then became comfortable [7] -Felt I grew more this semester than any other [4] -Felt I grew as a teacher [8,1] -Ready for student teaching next—didn't want to before [3] -Grown as a professional [1,6] -Improved in organizational & management skills [2] -3900 helped me grow tremendously; prepared me for future [9] -Improved lesson effectiveness [5]	-Gained experience teaching MS & HS students—all levels [7,3] -Know how to write & implement appropriate lessons at MS/HS levels; all levels [7,3] -Know what's expected of me (responsibilities) as a teacher [6,5] -Stopped being friends w/students—now a role model [2,5] -Confidence in ability to successfully teach [8] -Want to teach elementary PE [9]	-Learned the tricks of the trade [8] -Great content knowledge of curriculum [8] -Self-confidence in teaching ability [2,6,5,1,9,4] -Found new ways to motivate students [2] -Grown tremendously [6,9] -Practicum experiences & Sting helped to become a competent teacher [6,5] -Developed my own philosophy of PE [1] -Can effectively employ behavior mgt [7] -Can teach any topic in PE [7] -More organized [3] -More creative [3] -Can handle real-life situations [3]

Best of Portfolio / Question #3		
-My grade; have done well in course [4,1] -More students are on-task, better success rate [8] -Lesson plans [3,9] -Entire teaching portfolio [1] -Growth as a teacher [2,5]	-Professional growth as a physical educator/teacher [7] -Pretty good at reflecting on teaching & making changes [6,5] -New use of technology improved LPs & ideas [2] -Fulfilling requirements of elementary portfolio [5] -UP—able to write one at all levels [8] -Reached goals on teacher observation instrument/INTASC 9 [9] -LPs—well developed & appropriate [3]	-Reflections [4,1] -LPs [3] -Pictures of me w/my students in portfolio [9] -Growth as a new teacher [7] -Teaching philosophy [7] -Behavior mgt plan [7,2] -Videotape of teaching episode [7] -Analysis of all the data [1] -Activity One/Instructional Practice [5] -UP [6] -Can use bits & pieces of previous portfolios to help me teach [8]
Having a Tangible Product / Question #4		
-Feel good; sense of accomplishment [1,2,7,3,1,9] -Allows tracking of progress [7,4,8,5] -Know how to put portfolio together in future [7] -Lots of work [4] -Beneficial to me in my work as a teacher [8,9] -Can show it to teachers at schools, job interviews [3]	-Like it/feel good [7,1,6,8] -Represents my growth/accomplishments [7,1,2,5,9,3] -Glad to get experience developing portfolio/guide for future portfolio (PBL) [6,8,3] -Reflects who I am as a teacher [5]	-Feels good; sense of accomplishment [8,2,4,1,7,9] -Will show my change in teaching philosophy over time [8] -Can show to future employers; great tool [2,3,4] -Feel I could help someone else develop a portfolio [6] -Can show my professional growth/teaching abilities [5,1] -Gave me a chance to reflect on my development as a teacher [7] -Will benefit me in the future [9]
Most Beneficial/Helpful Sections of Portfolio / Question #5a		
-Video analysis [7,2,6] -Teacher improvement/INTASC 9 [7] -LPs [7] -Reflections [7,4,3,1,6,5] -Computer/Technology [7] -Peer/teacher evaluations [3] -Technology [2,6]	-Developing teaching goals/observation instruments/INTASC 9/ [1,8 -Behavior management component [6,5] -Reflections [2,3] -LP component [5] -Videotape of teaching [9]	-Reflections [4,7] -Development plans for improvement in teaching / INTASC 9 [3,7,8] -UP [9,8] -Videotape of teaching episode [7,6,2] -Behavior Mgt Component [1,5] -Instructional Practices Component [5] -Assessments from UP [6,2] -LPs [8]
Least Beneficial Sections of Portfolio / Questions #6b		
-None—all was important [7,3,5] -Reflections in all components—repetitious [4] -PE Central websites; subscribing to listserv, e-mail [1,2,6]	-E-mailing lesson reflections [2[-Redundancy of EDTC course product w/technology component [5,3] -Bulletin board assignment at internship site [9]	-None [4,3,1,6] -Too many observations in INTASC 9 [9] -Technology section [7,5,2] -Weekly reflections [8]

Suggestions for Improvement of Portfolio / Question #5c		
-All is good; none [7,1] -Subtract Part VI [4] -Add section for assessment/grading, & unit plan [3] -Check various parts throughout semester [2] -Skip e-mail component to instructor [6] -Provide sample portfolio to model [5]	-Have components due throughout semester rather than at end [2,5] -Have a day for portfolio questions/concerns [5] -Some parts have too much repetition [9]	-None [8,1] -Decrease amount of work for portfolio [2] -Technology component—only use items that pertain to teaching/PE [5,3 -Do 2 videotapes—one at beg & one at end & analysis of classroom mgt & instructional skills of the 2 tapings [1] -Some reflections were repetitious [9] -Good to have sections due throughout semester [4]
Field Exp Impact on Decision to Teach as Career / Question #6	**Field Exp Impact on Decision to Teach as Career / Question #6**	**Impact of Internship on Decision to Teach as Career / Question #6**
-Still want to teach [7,3,2,5] -Great experience [7] -Now considering teaching at elem level [4] -Reaffirmed desire to teach at elem level [6] -More comfortable at sec level than elem level [1]	-No impact [1 -Made me see I'll be teaching *students* not *content* [6] -More excited to teach/confirmation [2,5,8] -Want to teach elem or MS level [5] -Changed my mind, wanted to teach HS, now want elem level [9] -It calmed me down / de-stressor [3]	-Confirmed teaching as career choice [4,3,7,1,5,6,2,8] -Confirmation to teach elem PE [9 -Confirm teach in public schools 5-8 years, then college level teaching [7] -Grateful for "real world" teaching experiences [6] -Fully prepared—can teach at any level [8]
Additional Comments / Question #7	**Comfort Level w/Portfolio After Two Semesters / Question #7**	**Additional Comments / Question #8**
-Thanks for opportunity to learn from you [4] -Helped me to develop as future PE teacher [1]	-Feel comfortable in creating future portfolios [1,8] -Fairly/reasonably comfortable [6,5,9,3] -More comfortable w/timeline & turning in components throughout semester [2]	-Liked portfolio components submitted throughout various times during semester [8] -Enjoyed methods courses & experiences in EXSS [2] -Look forward to being a teacher first, then a coach [2]
N/A	**N/A**	**Use of Portfolio During 1st Year of Teaching / Question # 7**
		-For guidance for NC-PBL Product development [4,3,5] -To see how I handled certain aspects [3] -To determine things that need to be improved [3] -For interviews [9] -As guide when I begin teaching [9,7,1,2] -To reflect on my teaching; to become a reflective teacher [1,6] -To supplement my teaching (LPs & Ups) [8]

PORTFOLIO STUDY #2 DATA ANALYSIS

UNIVERSITY A FOCUS GROUP INTERVIEWS – SPRING 2000

Focus Group Question	Intern Responses
Question #7: You are the first group of students to develop a portfolio over 3 semesters. Talk about what it has been like having the portfolio introduced in earlier courses, with the purpose of building gradually to the internship. Is it worthwhile to begin working with the portfolio 2 semesters in advance of the internship? Should this practice be continued? Why or why not?	**Talk about what it has been like having the portfolio introduced in earlier courses, with the purpose of building gradually to the internship.** • From the beginning [1st semester], we hated it. Thought it was stupid. Couldn't see purpose to doing it. But, afterwards, working through it this semester [internship], it was easy. • You could plug stuff in from other portfolios. • Knowing what's expected down the road. Can see where it relates. Went to faculty meeting and they were talking about development plans [like we did]. • 1st semester—waited until last day to do it. • Intern semester portfolio was helpful because it was due in parts. Before, we'd all wait until the last minute. • Not just due dates helped, but they were evaluated in parts and we were given feedback. • We could revise if we made a mistake. • "We knew exactly what we were doing while interns from other disciplines (in School of Ed) didn't appear to have a clue. **Is it worthwhile to begin working with the portfolio 2 semesters in advance of the internship?** • Yes, as long as can you stuff from previous semester. • If you can use what you've done and not have to redo. • Since we've done it for 3 semesters, bring on the one we need to do as an ILT because I know what's coming.
Question #8: How helpful were your CT, US, and seminar instructor in the development of your portfolio? What specifically did they do to facilitate the construction of your portfolio?	• Don't think many of us had questions. • Seminars more focused on how things were going in our schools than portfolios. • Intern seminar instructor provided feedback and handed them back. US didn't spend a minute on them—didn't need to because I was already prepared. • Think CT & US already knew we were prepared or would have helped, if needed. • More helpful w/lesson plans—made them easy [not sure if CT or US or both] • US helped more w/lesson plans. • 4325 portfolios turned in, but no grade (pass/fail)—more focus on student teaching—portfolio on the side. 4323 was 99% paper work—didn't reflect ability to teach. • CT helps w/observation tools—INTASC 9 [systematic observation instruments]. • If help needed it would have been there—didn't need it. • A lot of CTs didn't do these—he learned from me instead. Probably couldn't have helped. • CT gave me time to do it.

Question #9: A main purpose of developing a portfolio is to have teachers reflect on their teaching for the purpose of change. Did the portfolio cause you to become more reflective? If yes, how and if no, why not?	• Yes. Began with class where we did observations (EXSS 2123). • Everybody is reflective in their own way. You can do it in your mind (reflect) and don't always need to write it down because you know. Think reflections show we can do it and know what to change, but it's not everything about the reflection process. • It doesn't show as much as we know. • Many reflections in portfolio were repetitive and too lengthy. • Some questions were redundant. • One had 32 questions [Section 1 –from PBL]. It asked the same thing. • I just put as I listed above...blah, blah, blah—wasn't going to write it again. • Reflections (weekly) made me sit there and think about what happened [that week]. • A lot of times you do it in your head and fix it. • If nothing happened that week [weekly reflections] I made myself think what else happened this week—and it may have been something small, but after reflecting on it, you gather up that this is a bigger problem than first imagined. • Weekly reflections could have been longer and more in-depth, rather than the same 5 questions week after week. Could have done a reflection on whole ST experience at end. • Guess it's supposed to help w/weekly reflections. Reflection on lesson plans... • But the reflective part, for that you have to put some time and thought in for each class. • If they had set up for each reflection—open-ended and write what you want. That would make the reflection better.
Question #10: If you had an opportunity to speak w/individuals who were just beginning their own portfolio, what would you tell them? What specific advice might you share w/them?	• Tell them do not wait until last minute. Do it in some type of progression, If you wait, won't put as much effort into it as it needs. It requires time and need to give yourself time to do it. • EXSS 3900 (1st semester), that's lesson #1. Don't wait. • Don't wait. • Revise it when seminar instructor tells you and gives her comments. • If she takes our comments from this, it will help. • When you hand it in, don't throw revisions in your book, because need to do it again this semester. • If you revise, only need to put them together [the portfolios]. • I know we told her [seminar instructor] how much we liked the due dates. She's now doing it in 4323. That's the biggest thing—due dates. • Don't get intimidated by the size of it [the portfolio]. • Don't get overwhelmed. • That won't happen if you do it piece by piece. • Back in earlier courses, need to take it seriously and do a good job. When it came to internship, didn't have to do a lot of stuff. 3900 portfolio wasn't as involved. Internship one was—but weren't working from scratch. • Need to know it's important to get as much out of it as you can—you'll see it again—for continuing licensure, so might as well learn as much while you're here. • Our department looks profession compared to others in the School of Education because we already know how to do portfolios. That's first time I head someone from School of Education say something positive about our department. • Not many people see you teach when you do get out into the schools. These [portfolios] are tangible products that show how much you've grown. Put as much effort into it as possible.
Question #11: What additional comments do you have to share regarding the Teacher Preparation Program or portfolio development?	[No responses given specific to portfolio development.]

Figure 2. Developmental Teaching Portfolio Model [DTPM].

Elementary Methods – EXSS 3900	Secondary Methods – EXSS 4323	Internship – EXSS 4325
INTASC 9 **Reflective Practice/Professional Growth** Development plan for improvement in teaching Video analysis of teaching Documentation of improvement via systematic observation instruments Culminating reflection on improvement in teaching	**Getting to Know Me...** Autobiography Resume Teaching philosophy [bulleted]	**Getting to Know Me...** Autobiography [4323] Updated resume [4323] Teaching philosophy [fully developed]
	Component A: Instructional Practice Instructional unit plan [secondary level] Videotape of teaching practicum [MS/HS] Video analysis of teaching episodes	**Component A: Instructional Practice** Instructional unit plan [3900 or 4323] 5 contiguous lesson plans Related student work Assessment data [pre/post] Analysis of data Directed reflection
Lesson Plan Development & Reflection Lesson plans/reflections [elementary teaching practicum]	**Component B: Classroom Management** Internship site management plan** Teacher candidate mgt plan [rules, protocols, consequences, intervention strategies, preventive behavior mgt, motivation techniques, implementation plan] Bulletin board [visual, description/self-evaluation, completed rubric by clinical teacher]	**Component B: Classroom Management** Intern management plan [4323] Log of discipline incidents or case study Directed reflection
Computer Technology Component E-mails Listserv PE Central web site Unit plan resources via search engines & web sites	**INTASC 9** **Reflective Practice/Professional Growth** Self-assessment of current teaching effectiveness [pre- & post-assessment] Development plan for improvement in teaching Documentation of improvement via systematic observation instruments Culminating reflection on improvement in teaching	**INTASC 9: Reflective Practice/Professional Growth** Self-assessment of current teaching effectiveness [pre- & post-assessment] Development plan for improvement in teaching Documentation of improvement via systematic observation instruments Culminating reflection on improvement in teaching
*Note: An elementary level instructional unit plan is also developed as a separate project.	**Lesson Development & Reflection** Lesson plans/reflections [MS & HS teaching practica] Monthly senior I reflections Senior 1 culminating reflection	**Ongoing Reflections...** Intern bi-weekly reflection logs
	Component C: Technology Check sheet verification of beginning & advanced competencies Technology product examples NASPE-L listserv commentary PE Central commentary & selected documents	**Videotape of Instruction** Videotape of instructional/managerial episode from unit plan* Preview of video contents [instructional & managerial aspects] *Reflection of video analysis occurs in Component's A & B directed reflections
	**Note: Teacher candidates spend 1 full day/week at their assigned internship site the semester prior to student teaching.	**Component C: Technology** Check sheet verification [4323] Technology product examples [4323] Technology implementation – unit of instruction [Component A]

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Signature: Terry A. Senne	Printed Name/Position/Title: TERRY A. SENNE / ASSISTANT PROFESSOR
Organization/Address: EAST CAROLINA UNIV / DEPT. OF EXSS 152 MINGES COLISEUM GREENVILLE, NC 27858	Telephone: (252) 328-4643 FAX: (252) 328-4654
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